



QUARTERLY REPORT

Naval Postgraduate School

Summer 2005

NPS Holds Summer Commencement Ceremony

Story and Photos by NPS Public Affairs

On September 23, 2005, 322 students received their diplomas and encouraging remarks from keynote speaker and Naval Postgraduate School President, Rear Adm. Patrick W. Dunne. The graduating class, with representation from all the armed services, also included 63 Department of Defense civilians and 35 international officers.

During his address, Rear Adm. Dunne encouraged the new graduates to apply their newly acquired skills as well as continue to learn as part of the lifelong learning process. The President also emphasized the

importance of being prepared for the future in today's uncertain times.

The breakdown of degrees include three doctorate degrees, two engineering degrees, 60 Masters of Arts, 13 Masters of Business, 211 Masters of Science, 32 Executive Masters of Business and ten dual degrees.

The international students came from 18 different countries, which included Argentina, Bahrain, Brazil, Canada, Chile, Germany, Greece, Hungary, Indonesia, Japan, Jordan, Pakistan, Philippines, Spain, Sweden, Taiwan, Turkey and the United Kingdom.

In a separate ceremony, 27 achievement awards were presented to 24 students. Marine Corps Capt. Koichi Takagi received separate awards for highest academic achievement and outstanding achievement in



graduate research. The NPS award for outstanding academic achievement for a DoD student went to Mr. Jonathan C. Wintrobe and a similar award for international students went to Lt. j.g. Sotirios Dimas of the Hellenic Navy.

In order to meet the requirements for Intermediate Service College and Joint Professional Military Education, the Naval War College awarded 73 NPS students (70 USN, two USAF and one USMC) the Naval War College Command and Staff diploma. Students completed

three NWC courses in this program: Strategy and Policy, National Security Decision Making, and Joint Maritime Operations.



Three of NPS's newest PhD graduates

Summer Graduates

U. S. Navy:	95
U. S. Marine Corps:	32
U. S. Army:	10
U. S. Coast Guard:	03
U. S. Air Force:	41
U. S. DoD Civilians:	63
International Officers:	35
U. S. Naval Reserves:	43
Total Graduates:	322

Spotlight on Recent NPS Graduate Thesis Work

U. S. Marine Corps Capt. Koichi Takagi, Master of Science in Operations Research and Master of Business Administration, was recognized for his thesis - Applied warfighter ergonomics: a research method for evaluating military individual equipment. The objective of his research effort was to design and implement a laboratory and establish a research method focused on scientific evaluation of human factors considerations for military individual equipment under both laboratory and field conditions. The integrated approach for laboratory and field conditions is the first of its kind for military human factors research, enabling an unparalleled degree of scientific rigor in the

collection of empirical human factors data.

Lt. Matthew Tardy and Army Capt. Christopher McDaniel (June 2005 graduate), Masters of Science in Computer Science, completed a case study, which investigated the capabilities and limitations of Role-Based Access Control (RBAC) to control the dissemination of Shared Situational Awareness (SSA) in a coalition environment. Their research focused on the unique challenge to providing access control of SSA among coalition militaries, law enforcement, the intelligence community, and the private sector. The case study was that of controlling access to SSA in the Martime Domain Awareness environment.

Lt. Juan Ubiera, Master of Science in Applied Physics, received the Surface Navy Association's award for excellence with his thesis on the monolithic barrel naval railgun. This thesis discusses the concept, assembly, and testing of a monolithic railgun barrel without load-bearing insulators. Current railgun technology uses parallel conducting rails separated by an insulator material. Considerable damage occurs to both the rails and the insulators during launching of railgun projectiles, and the manufacture of rectangular barrels is complicated. The research successfully demonstrated the concept of operation on a shorter barrel. The barrel is inherently much stronger, and manufacture is simple.

NPS Provides Global Support

Center for Stabilization and Reconstruction

The Center for Stabilization and Reconstruction Studies (CSRS) conducted the first in a series of several educational games addressing the challenges associated with stabilization and reconstruction operations. The Summer Game, *"Humanitarian Operations During Conflict,"* brought together 35 representatives from the US military, DoD, State, United Nations and NGO humanitarian relief agencies to explore possibilities for cooperation in the delivery of humanitarian assistance in conflict zones. Congressman Sam Farr (D-Monterey) and Ambassador Pascual, State Department (pictured below), participated in the opening session of the event.



Center for Civil Military Relations

The Center for Civil Military Relations (CCMR) held 53 events during this quarter, both in Monterey and in other countries, reaching over 2,000 civilians and military officers from 50 nations, including Guinea-Bissau, Sierra Leone, Turkey, Ukraine, Moldova, Cambodia, Thailand, Morocco, Romania, Indonesia, Colombia, and India. These events ranged from two-day site visits to three-week seminars. The Center also continued the ongoing defense/institutional reform events in Azerbaijan, Moldova, Ukraine and Colombia.

Planning Peace Operations Seminar

Fourteen civilian and military officials from 7 countries—Brazil, Jordan, Moldova, Papua-New Guinea, Paraguay, Romania, and Ukraine—attended the "Planning Peace Operations" course in Monterey, California, August 8-26. This three week seminar enhances participants' understanding of how best to lead and participate in peace operations. Students were engaged in creating a UN Security Council resolution, planning the deployment of a peacekeeping force, and reacting to a humanitarian crisis.

Partnership for Peace (PfP) Program

In August, NPS hosted the *"PfP Education and Training Centers Commandants' Working Group Meeting"* with 24 participants from various NATO and PfP countries.

Defense Resources Management Institute (DRMI)

Almost 50 international military officers and civilians from 34 countries attended DRMI's 4-week senior course on how best to manage limited defense resources. This is the 36th year for the senior class (participants are flag officers and top military officials). Among the mix of students are seven NPS alumni from: Colombia, Czech Republic, Denmark, Estonia, Malaysia, and Norway.

Regional Security Education Program

From July 13-21, Professors James Russell, Tom Johnson, Dan Moran, and Abbas Kadhim from the National Security Affairs Department (pictured below), were deployed to the Expeditionary Strike Group One during its transit from San Diego to Hawaii. The team delivered over 40 lectures on topics relating to: South Asia, Middle East, the Gulf States, the Global War on Terror in Iran, Islam, WMD proliferation, and many others.



Leader Development and Education for Sustained Peace Program (LDESP) Support

The LDESP program has been busy preparing National Guard units for deployments to Iraq, Bosnia-Herzegovina, and Kosovo.

LDSEP in Iraq has been preparing the 80th Division (Institutional Training) for deployment to Baghdad to mentor the Iraqi Security Forces, assisting the 1st and 2nd Brigade Combat Team from the 1st Armored Division for deployments to Iraq in early 2006, assisting the 49th Military Police Brigade for deployments to Iraq in late 2005, and organizing, training, equipping and mentoring Iraqi Security Forces through 5 Multi-National Security Transition Command-Iraq (MNSTC-I) events in Fort Carson, Colorado.

In B-H and Kosovo, they have been assisting the 36th Infantry Division, Texas Army National Guard's deployments to Kosovo and Bosnia in January 2006.

Training B-H Officers:

In mid-September, the LDESP program conducted a General Officer Development Seminar for general officers in Bosnia and Herzegovina.

Center for Homeland Defense and Security

At the request of the U.S. Air Force, NPS introduced a new 15-month, in-residence, master's degree curriculum to provide future USAF leaders in homeland security with a theoretical and practical understanding of the challenges in deterring asymmetric threats and attacks. As a result, this new MA program—the first in the nation—focuses on intelligence relating to air/maritime homeland defense. The program started on September 26th with 19 students (17-USAF, 1-Navy, 1-Army).



CHDS Launches Homeland Security Affairs E-Journal

A new on-line journal, Homeland Security Affairs (pictured above), was launched in August by CHDS. The journal, published on a quarterly basis, presents articles from top homeland security experts and practitioners. View it at: www.hsaj.org

Mobile Education Teams—Assisting Governors

CHDS METS held conferences in the following locations:

- Pacific Basin, Kona, Hawaii
- Washington State Homeland Security Mil/Em Agency, Camp Murray, Wash.
- NEMA Annual Conference, Anchorage, Alaska
- Agro-Terrorism Executive Education, Sacramento, Calif.

Masters Degree Program

- Twenty-six CHDS participants will be receiving their M.A.'s in Homeland Security on the 23rd of September.
- Thirty-three state, local and DHS officials started the M.A. program on the 7th of September. This is the 6th cohort to enter the program.

For more information on the Center for Homeland Defense and Security, please visit www.chds.us on the worldwide web.

Adm. Thomas Fargo speaks as Distinguished Guest Lecturer



Retired Admiral Thomas Fargo was the distinguished guest Lecturer, hosted by the Naval Postgraduate School's Foundation. He spoke on China's rise and influence in the Pacific and how in spite of their exploding economic gains, the country as a whole must still mature in terms of domestic product growth. "The Pacific region, including Indonesia needs good governance and that is what will drive these very young democracies to stability," said Fargo. (photo above)

CNO Visits Human Capital Strategy Symposium



Chief of Naval Operations (CNO) Adm. Mike Mullen, makes a point during his opening remarks at the Third Naval Total Force Human Capital Strategy Symposium. The two day event was hosted by Task Force Total Force and Naval Postgraduate School. (photo above)

NPS Opens Professional Military Training Office in Norfolk

The Naval Postgraduate School's (NPS) Office of Continuous Learning (OCL) held a grand opening for its second Professional Military Outreach Office on Sept. 14. It is located on the Joint Forces Staff College in Norfolk, Virginia. The new office was established to enhance NPS's effort to bring graduate education to the fleet and is staffed with NPS personnel who are able to counsel fleet personnel on the NPS Distributed Learning (DL) degree and non-degree programs.

By establishing these regional centers, NPS intends to deliver graduate education using blended learning techniques. Its goal is to deliver accredited graduate education to the vast number of Navy personnel in fleet concentration areas who will not be able to attend NPS in residence.

"Outreach programs extend the NPS presence through the Outreach Offices located in fleet concentration areas (FCAs) and various

other universities via Educational Partnerships, as well as provide an opportunity for NPS alumni to 'reach back' to NPS for current, relevant education via continuous learning," said Marti Brooks, area coordinator for NPS Outreach Office Norfolk. "These fully graduate-level courses and programs are available through NPS in Monterey, California via a variety of DL methods such as: video tele-education



(VTE), Mobile Education Teams (NPS Faculty) and fully online web-based courses."

This action supports the current initiatives of Task Force Excel (TFE) concerning graduate education for tomorrow's sailors.

"By establishing regional centers, the Navy intends to deliver the right education to the right people at the right time, using blended learning techniques," says Brooks. "These outreach offices are the first steps in achieving these goals." (ribbon cutting photo above)

NPS Welcomes PfP Delegation



Naval Postgraduate School is the site of the nation's Partnership for Peace (PfP) Training and Education Center where NATO and PfP representatives gather to develop policy recommendations within a working group format. They met recently to work on details for interoperability and transformation challenges with respect to NATO forces and the Alliance as a whole. The PfP is chiefly aimed at improving defense and military cooperation at NATO and among partners. It is designed to reinforce stability and reduce the risk of conflict within the Euro-Atlantic Region. The representatives from the following countries who met at NPS are: France, Croatia, Austria, the Netherlands, Greece, Sweden, Finland, Romania, Turkey, Slovakia and the United States (pictured above).

NPS Research Teams Aid Hurricane Katrina Relief

Story by Journalist 2nd Class Chad Runge

As Katrina ripped through the Gulf states, it leveled houses, flooded previously crowded streets and destroyed communication equipment.

lished internet access and voice-over internet protocol communication services and established a ship-to-shore communications backbone



Along with thousands of relief workers already in the area, nineteen faculty and students from NPS, lead by Prof. Brian Steckler, deployed to areas surrounding Bay St. Louis and Pascagoula, Miss. to establish rapidly deployed portable/mobile networks and other communications in support of DoD's Humanitarian Assistance/Disaster Relief (HA/DR) mission and to further NPS's Hastily Formed Networks (HFN) research for Complex Humanitarian Disaster (CHD) missions of DoD.

Divided into two teams, using three recreational vehicles, the Nemesis (pictured above), a specially equipped mobile operations center, and two additional vehicles for living quarters and storage of supplies, the groups made great strides in improving communications.

Deployed under the operational command of Joint Task Force (JTF) Katrina, Camp Shelby the first group was assigned to the tactical control of JTF Katrina Joint Force Maritime Component Commander. Their mission was to create Hastily Formed Networks to provide communication networks capable of linking first responders and Non Governmental Organizations. Work focused on Bay St. Louis and the surrounding area.

In just a short time, they estab-

lished a collaborative, meshed network of ships and relief agencies utilizing web-based collaborative software and establish a collaborative network for civil and military agencies in Pascagoula and surrounding areas.

Lt. Pat Lancaster, a recent accession to the Information Professional community and Det Katrina Operations Officer, stated he has "gained valuable insight to the importance of the voice component of HFNs." He is working on a joint thesis with two other IP students, Lt. Robert Moore and Lt. Bobby Patto, to install CENTRIX at NPS and feedback from their experience has turned some of their attention to adding a voice component to CENTRIX.

In addition to the technical experience gained, Brian Steckler noted that, "although the immediate response was to help those in need, there has been and will continue to be a HUGE opportunity for us to learn how FEMA and the other agencies work and in this case with the active duty forces and National Guard. We're collecting many, many business cards and are already discussing future collaboration with several key medical as well as technical entities. This is an absolute goldmine for real-time data and thesis research topics. We are also

making some lifelong friends in the local community and the multi-state groups of early responders."

The Hurricane Katrina relief effort provided NPS a unique opportunity for NPS faculty and students to engage and expand research efforts in support of a real world contingency. Many of the concepts and solutions applied were gained from field experimentation and student theses at NPS. This real world experience illustrates the need for an adaptive network infrastructure capable of supporting civil-military authorities in times of both natural and man-made disasters. NPS' Center for Network Innovation and Experimentation (CENETIX), the Nemesis MRF, and the Wireless Warfighting Laboratory are in a unique position to conduct continued research and pioneer wireless mesh communica-

tions in this dynamic digital age.

The communications teams are not the only group from NPS to give their support. Many students from the Center for Homeland Defense and Security (CHDS) have deployed in support of Katrina operations. Students from disciplines like FBI, Law Enforcement, Fire, Emergency Management, NORTHCOM and U.S. Dept. Health and Human Services are working on emergency operations as well as planning for long-term recovery.

The Department of Homeland Security also tapped seven CHDS law enforcement professionals (one faculty, one alumnus, five current students) to provide technical guidance to DHS assessment teams deploying to provide assistance to facilitate the reconstitution of local law enforcement services in the affected areas.



GSBPP Unveils New Cutting 'Edge' Research Center

The Center for Edge Power was established recently within the Graduate School of Business and Public Policy. This new Center is intended to foster, coordinate and promote multidisciplinary research on all elements of network-centric operations (e.g., including concepts, organization, command and control, management, doctrine, personnel, technology). The term "edge" derives from

the recent book entitled Power to the Edge (Alberts and Hayes, 2003), which depicts new ways of organizing military forces and of enabling more powerful warfare by leveraging shared awareness and dynamic knowledge. Although designated as an official NPS organization, the Center is virtual, with participating faculty, postdocs and PhD students from Stanford, Southern Cal and other top universities.